REMARKS

35 U.S.C. § 102 Claim Rejections

The Examiner has rejected claims 1-4, 7, 9, 11-13 and 28-29 as being anticipated under 35 U.S.C. § 102(b) by Avellanet (U.S. Patent No. 6,036,725). Applicant has carefully considered the Examiner's comments. As a result, Applicant has amended independent claims 1, 18, 21, 28 and 30 and has added new claim 39. Applicant respectfully submits that Avellanet does not disclose all of the limitations of Applicant's claims as now presented.

Avellanet discloses a stent with foil members 16 coupled to the exterior of the stent by welds 38, 40. (Col. 5, lines 18-21; col. 6, lines 1-10). The purpose of the foil members 16 is to minimize trauma at the implant location and provide additional strength to the stent. (Abstract; col. 2, lines 53-62; col. 4, lines 12-27; col. 7, lines 17-35). As such, the foil members 16 are made from metal, such as stainless steel, titanium, nickel-titanium alloy or platinum. (Col. 5, lines 59-60). In contrast to Avellanet, Applicant's claims require a graft material that extends along the circumference. (*See, e.g.*, ¶ 0031). The foil members disclosed in Avellanet are not graft material as claimed by Applicant. Moreover, Avellanet's foil members do not extend along at least ¼ of the circumference and are not non-metallic as required by Applicant's amended claims.

The Examiner's reliance upon the reference to PTFE in Avellanet at column 6, lines 50-60 is misplaced. It is undisputed that the foil members 16 in Avellanet are made of metal. (Col. 5, lines 59-60). The reference to PTFE that the Examiner relies upon refers to a coating that may be applied to the foil members, not to the foil members themselves. Thus, it is clear that the PTFE coating extends along the foil members not the support frame. As such, the PTFE coating does not act as a graft material. Moreover, claims 1, 18, 21, 28 and 30 now require that the graft material extends along at least ¼ of the circumference of the support frame or tubular structure. Additionally, claim 39 requires that the graft material is non-metallic. Avellanet does not satisfy either of these limitations. The foil members extend along less than ¼ of the circumference of the support frame and are made of metal.

Accordingly, Avellanet does not disclose the limitations of the claims as now presented. Thus, the Examiner may now withdraw this rejection.

35 U.S.C. § 103 Claim Rejections

The Examiner has rejected claims 1-8, 10-13, 18-19, 21-22, 24 and 30-35 as being unpatentable under 35 U.S.C. § 103(a) over Summers (U.S. Patent 6,080,191) in view of Deem et al. (U.S. Patent No. 6,231,597). The Examiner has also rejected claims 15-17, 25-27 and 36-38 as being unpatentable under 35 U.S.C. § 103(a) over Summers in view of Deem et al. and further in view of Boatman et al. (U.S. Patent No. 6,464,720). Applicant has carefully considered the Examiner's comments. However, Applicant respectfully argues that there is no suggestion or motivation to combine Summers and Deem et al. as the Examiner attempts to do.

As previously explained, Deem et al. discloses a stent with a mid-region 15 and first and second ends 16, 18. (Col. 4, lines 59-61). The mid-region 15 is formed by curved sections 20. (Col. 4, lines 61-63). The curved sections 20 of the mid-region 15 extend over only a portion of the circumference. (Col. 5, lines 9-13; col. 3, lines 31-38; Figures 11A-11B). In contrast to Deem et al., Applicant's claims require a support frame or tubular structure with a substantially uniform circumference comprising a full circle. (*See, e.g.,* ¶ 0027, Figures 1-5 and 10). Deem et al. does not disclose this limitation. Instead, the structure in Deem et al. extends over only a portion of the circumference.

It would not have been obvious to combine Summers with Deem at al. and the Examiner's attempt to do so at this time relies upon impermissible hindsight. For example, Deem et al, repeatedly teaches away from using a support frame with a substantially uniform circumference comprising a full circle. (Col. 2, lines 28-50; col. 3, lines 5-12; col. 3, lines 20-28; col. 5, lines 15-21). Deem et al. explains that it is undesirable to use a support frame that comprises a full circle because this makes the stent too rigid to negotiate tortuous vessels and because the stent structure becomes overgrown with endothelium which restricts blood flow. (See, e.g., col. 2, lines 39-46). Therefore, Deem et al. would not expect Applicant's invention to work in one of the applications described by Applicant. As shown in Figure 10 of Applicant's application and described in ¶ [0052], Applicant's support device may be used to block blood flow

into an aneurysm 492 while at the same time allow blood to flow through an adjacent branch artery 496. However, as shown in Figure 10, the blood flows through the branch artery through openings in the support frame. This is contrary to the teaching of Deem et al., which uses a support frame that comprises less than a full circle to increase flexibility and to prevent endothelial growth.

Applicant's invention also solves a problem not recognized by Deem et al. As shown in Figure 11B of Deem et al., Deem et al. contemplates the use of the disclosed stent to block blood flow into an aneurysm. However, this arrangement is unlikely to fully seal the neck of the aneurysm. Because the support frame extends only partially around the circumference of the vessel wall, it is possible that blood flow may leak around the edges of the support frame and the graft material. This leakage could flow into the aneurysm. Applicant's invention reduces this problem by using a support frame with a substantially uniform circumference that comprises a full circle. As a result, the support frame exerts pressure on the full circumference of the vessel wall. This ensures that the graft material is securely pressed again the neck of the aneurysm to prevent leakage around the edges of the graft material.

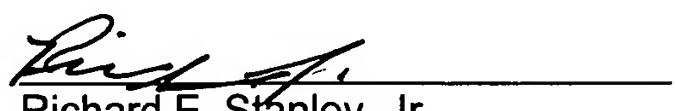
Accordingly, Deem et al. cannot be combined with Summers to achieve Applicant's invention. Thus, independent claims 1, 18, 21, 28, 30 and 39 are allowable and the Examiner may now withdraw all rejections of these claims. Claims 2-13, 15-17, 19, 22, 24-27, 29, 31-34 and 36-38 are also allowable since these claims depend from claims 1, 18, 21, 28 and 30, and any further arguments that could be made are unnecessary and would be superfluous at this time.

Conclusion

None of the prior art discloses Applicant's invention as claimed. In particular, Applicant's claims require a support frame or tubular structure with a substantially uniform circumference comprising a full circle. A graft material is further required that extends only a partial distance along the circumference of the support frame or tubular structure.

Accordingly, Applicant respectfully requests reconsideration and allowance of the application.

Respectfully submitted,



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